

Amendments to the Specification

Kindly amend the specification as follows:

Page 1, between the Title and the heading "FIELD OF THE INVENTION", insert the following paragraph:

CROSS REFERENCE TO RELATED APPLICATIONS

This is a continuation application of application Serial No. 09/661,253 filed September 13, 2000, which is a continuation of application Serial No. PCT/AU99/00179, filed March 18, 1999, the entire contents of which are hereby incorporated by reference for all purposes, and which claims foreign priority under 35 U.S.C. 119 to British Application 9805646.8 filed March 18, 1998, the entire contents of which are also incorporated herein by reference for all purposes.

Please replace the paragraph beginning on page 2, line 14 with the following amended paragraph:

According to the invention there is provided a composite superconducting tape comprising a multiplicity of constituent superconducting tapes stacked parallel to one another with major faces in contact, and is ~~characterised~~ characterized in that at least some of the constituent tapes have widths not greater than half the width of the composite superconductor and are laid edge to edge with each other, the composite superconducting tape including at least one tape bridging the stacks.

On page 2, between lines 18 and 19, please add the following paragraph:

According to another aspect of the invention, there is provided a composite superconducting tape constructed from a plurality of superconducting tapes, each having two opposite major faces and two opposite edges extending between the major faces, the composite superconducting tape including a first stack having a plurality of the superconducting tapes wherein each tape in the first stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack, a second stack having a plurality of the superconducting tapes wherein each tape in the second stack has at least one major face in contact with a major face of an adjacent superconducting tape in that stack, wherein at least some of the superconducting tapes have widths not greater than half the width of the composite superconducting tape, and a bridging tape spanning between the two stacks for maintaining the first and second stacks in a substantially parallel edge-to-edge configuration.

Please replace the paragraph beginning on page 5, line 30 with the following amended paragraph:

The embodiment described above has used eight monofilamentary constituent tapes ~~[[2]]~~ 12 and has a final thickness between 0.25 and 0.3 mm. However, more or fewer tapes can be used and the width, thickness and number of sub-stacks varied depending upon the application of the tape and the relevant (but conflicting) requirements for capacity and flexibility. In most cases the balance of thicknesses and

rolling reduction should be such that the filament thickness is generally in the range 10-40 μm , but preferably close to the lower end of that range.

Please replace the paragraph beginning on page 6, line 6 with the following amended paragraph:

Twisted (or untwisted) multifilamentary tapes, if desired with different numbers of filaments, different pitches and/or different twisting sense or direction, could also be stacked and bonded together and provided with or without the outer layers of silver/silver alloy such as bridging tape 13 and 14, but the invention is not expected to show the same benefits for twisted tapes as for untwisted ones.

Please enter the abstract herewith:

A composite superconducting tape including a multiplicity of constituent superconducting tapes stacked parallel to one another with major faces in contact, and at least some of constituent tapes have widths not greater than half the width of the composite superconductor and are laid edge to edge with each other. All constituent superconducting tapes may have a width that is substantially half, or another simple fraction, of the width of the composite tape so that they form two or more substacks with aligned zones between them which contain no superconducting material. A full-width tape of silver or silver alloy to bridge from tape to tape provides sufficiently strong mechanical connection between substacks. The composite superconducting tape has

substantially improved critical current compared with a stack of the same overall dimensions and composition with all full-width superconducting tapes, due to magnetic de-coupling between the substacks.